

REMARKS

Claims 1-5, 9-15, 17, and 19-21 are pending. Claims 1-5, 9-15, 17, and 19-21 are rejected.

Claims 1-3, 5, 9-11, 13-15, 17, and 19-20 are rejected under 35 USC § 103(a) as being unpatentable over Todokoro, et al., (U.S. 6,084,238, hereinafter “Todokoro I”) in view of Adamec (U.S. 7,045,781, hereinafter “Adamec”), and further in view of Ose (U.S. 6,787,772, hereinafter “Ose”)

As noted in Applicant’s remarks dated August 8, 2008, Todokoro fails to teach or suggest deflectors placed at spaced apart locations along a column wherein a first location is upstream of an inner lens detector assembly and a second location is downstream of the same inner lens detector assembly. Instead, Todokoro teaches an upper detector 33 above an upper scanning deflector 15 and a lower detector 34 between the lower scanning deflector 16 and an acceleration tube. *Todokoro*, col. 8, lines 25-28. Based on this disclosure and elements 15, 33, 16, and 34 as shown in Figure 5, Todokoro clearly teaches an assembly using two different detectors. As such, Todokoro clearly fails to teach or suggest a deflection assembly having deflectors operable to apply deflection fields to the primary electron beam at spaced-apart locations along the column, at least a first of said locations being located upstream of an inner lens detector assembly and at least a second of said locations being located downstream of said inner lens detector assembly as recited in claims 1 and 13.

In the Office Action, it is admitted that Todokoro fails to disclose deflectors operable to deflect a trajectory of the primary electron beam from the first optical axis to propagate along a second optical axis substantially parallel to and spaced-apart from the first optical axis as recited in claims 1 and 13 and asserts that Adamec cures this deficiency. Office Action dated October 21, 2008, (herein the “Office Action”), page 3. Applicants respectfully disagree.

Adamec fails to mention the deflection of a trajectory of the primary beam and is, in fact, limited to only the deflection of a primary electron beam. See *Adamec*, e.g. Figure 3 and column 8, lines 1-29. In Figure 5 of Adamec, it appears that an objective lens may adjust the trajectory of the secondary electrons toward a detector. However, even if this adjustment were analogous to the deflection of a trajectory of a primary beam as recited in claims 1 and 13, Adamec still fails to teach or suggest deflecting a trajectory of the primary electron beam from the first optical axis to propagate along a second optical axis substantially parallel to and spaced-apart from the first optical axis as recited in claims 1 and 13. In the Office Action it is asserted that Ose overcomes this deficiency. Applicants respectfully disagree.

The secondary electrons of Ose intersect the optical axis. See e.g. *Ose*, Figure 9. Additionally, the secondary electrons of Ose “fall in regions near the optical axis on the conversion electrode. Since the conversion electrode is provided with a central aperture through which the primary electron beam passes, some secondary electrons travel through the central aperture of the conversion electrode and are not detected.” *Id.*, column 4, lines 40-45. Thus, the secondary electrons of Ose are the result of electron scattering and are not directed to a detector. Furthermore, the secondary electrons of Ose are not deflected from the first optical axis to propagate along a second optical axis substantially parallel to and spaced-apart from the first optical axis as recited in claims 1 and 13.

Thus, the cited art fails to teach each and every element of independent claims 1 and 13. Claims 2, 3, 5, 9-11, 14, 15, 17, and 19-20 depend, directly or indirectly, from one of the foregoing independent claims and are patentable over the cited art for at least the same reasons as claims 1 and 13.

Claims 4, 12, and 21 are rejected under 35 USC § 103(a) as being unpatentable over Tokodoro I in view of Adamec, in further view of Ose and in still further view of Todokoro et al., (U.S. 6,635,873, hereinafter “Todokoro II”).

Claims 4, 12, and 21 depend, directly or indirectly, from one of independent claims 1 and 13 and are patentable over the cited art for at least the same reasons as claims 1 and 13.

For at least the foregoing reasons, the claims are patentable over the references cited in the Final Office Action. If there are any additional charges, please charge Deposit Account No. 19-3140.

Respectfully submitted,

Dated: January 21, 2009

/Tarek N. Fahmi/

Tarek N. Fahmi

Reg. No. 41,402

PO Box 061080
Wacker Drive Station, Sears Tower
Chicago, IL 60606-1080
Tel.: (650) 798-0320